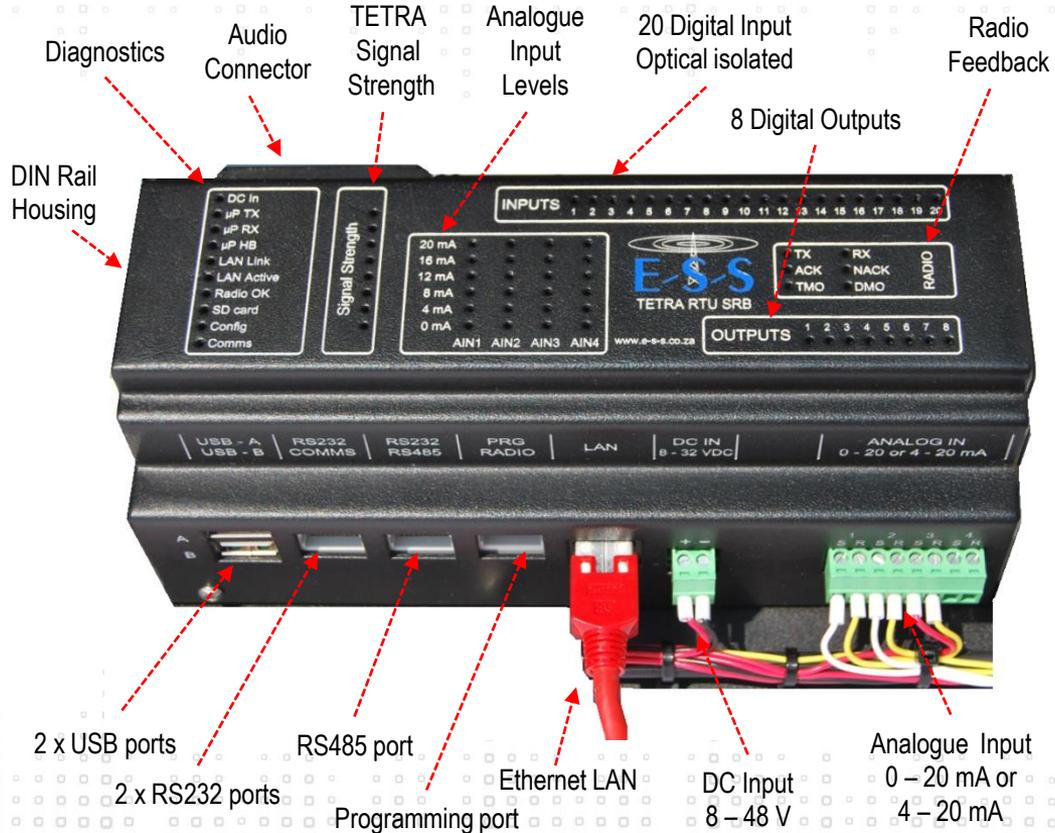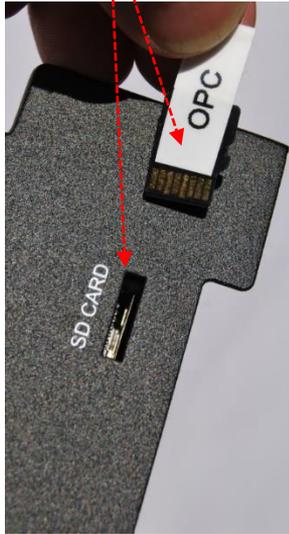# ESS RTU Product Information

- ✓ ESS uses an embedded military grade industrial microprocessor with Linux OS
- ✓ Uses various communication media (GSM/LTE/TETRA/DMR/MPT/LAN)
- ✓ Intelligent way of minimising data to the Monitoring & Control Software (SCADA)
- ✓ All programming info resides on a removable SD card
- ✓ Easy to program, needs limited skill-set for changing parameters
- ✓ Protocols supported: OPC 1, 2 and 3, Modbus, IEC60870-101, 103, 104, IEC61850, DNP3
- ✓ Wide input operational voltage range and low power consumption (8 – 48 VDC)
- ✓ 4 analogue inputs (0/4 to 20 mA)
- ✓ 20 optical isolated digital inputs
- ✓ 8 digital outputs
- ✓ Supports 2 x USB devices
- ✓ Dual Watchdog Function
- ✓ Data buffer
- ✓ Logic functions
- ✓ End-2-End data encryption option

ESS RTU Product Information I/O's

Removable SD card

Diagnostics

Audio Connector

TETRA Signal Strength

Analogue Input Levels

20 Digital Input Optical isolated

Radio Feedback

8 Digital Outputs

DIN Rail Housing

2 x USB ports

2 x RS232 ports

RS485 port

Programming port

Ethernet LAN

DC Input 8 – 48 V

Analogue Input 0 – 20 mA or 4 – 20 mA

ESS RTU Product Range

RTU-SRB
RTU with internal TETRA Modem

RTU-GSM
RTU with internal GSM Modem

RTU-LAN
RTU for external communication device e.g. DMR, TETRA, MPT1327, GSM, Ethernet LAN

ESS RTU Product Range

AIN-EXT-08

Analogue Input Extender module, 8 inputs

DIN-EXT-16

Analogue Input Extender module, 8 inputs

DOUT-EXT-08

Digital Output Extender module, 8 outputs

ESS RTU Product Range

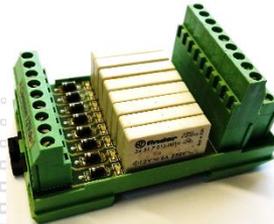| ESS-A-CON	Current Controller
ESS-V-CON	Voltage Controller/Sensor
ESS-V-ISO-CON	Voltage galvanic isolated Controller/Sensor
ESS-T-CON	Temperature Controller

Current Sensor Input 0 - 50 Amp DC, output 0 - 20 mA

Temperature Sensor, -20 to 60 degrees C, output 0 - 20 mA

 4 relay block
10 Amp contacts

 8 relay block
6 Amp contacts

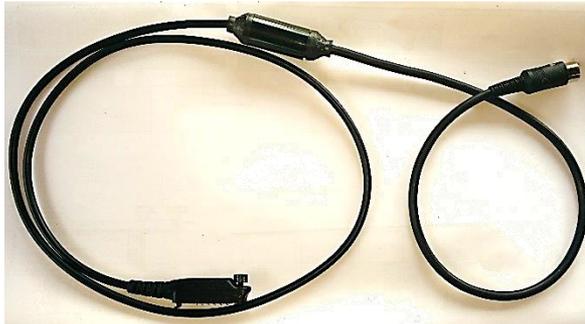 Passive galvanic
isolator 0 to 20 mA

ESS RTU Product Range

19 inch Status & Alarm (Site monitoring) mounting hardware for RTU, relays, voltage controller, current controller, temperature controller, analogue galvanic isolator (diesel level) including industrial terminal and wiring.

19 inch Intelligent Power Supply 24VDC with battery charger and battery backup

Audio Cable Interface between ESS-RTU-SRB and PA systems
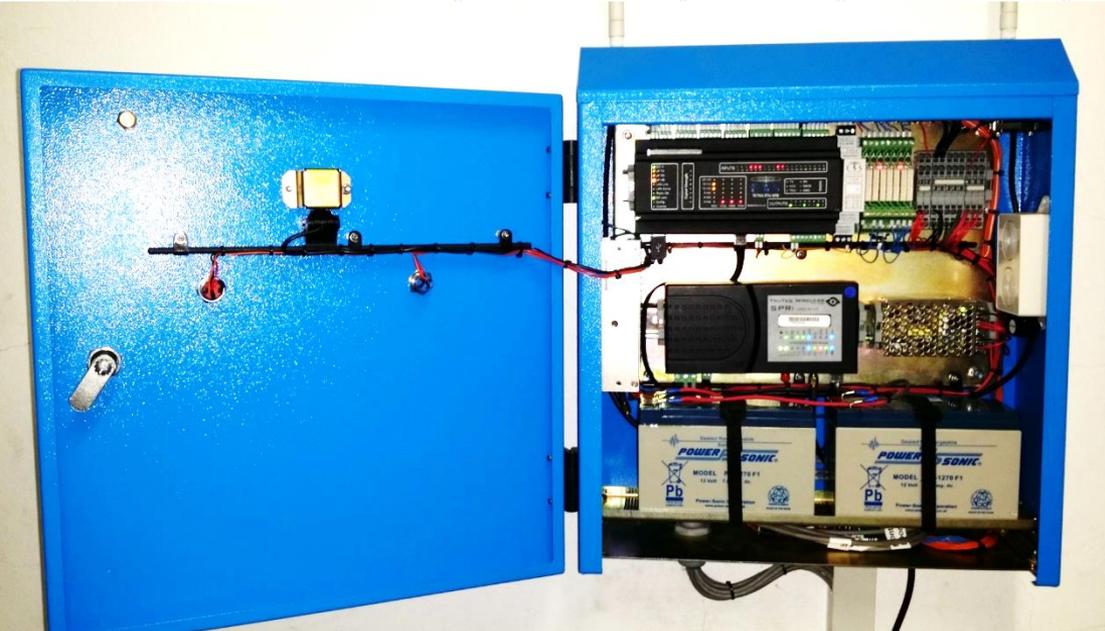
Public Address systems
comprising:
- ✓ Self supporting 9 meter tower
  (no excavation or foundation required)
- ✓ Stainless Outdoor 19 inch cabinet
- ✓ Solar Panels
- ✓ Solar regulator
- ✓ Batteries
- ✓ PA amplifier
- ✓ TETRA RTU
- ✓ V, A, T Sensors
- ✓ Relays
- ✓ Door sensors
- ✓ Lode fall arrest fall protection
- ✓ Antenna

BankVault Control Unit

comprising:
- ✓ RTU-LAN
- ✓ Indoor cabinet
- ✓ Voltage Sensors
- ✓ Relays
- ✓ HD Camera
- ✓ Dual GSM SIM card LAN Router
- ✓ 12 VDC supply (Sensors)
- ✓ 24 VDC supply (RTU and GSM modem)
- ✓ Buzzers and loudspeaker
- ✓ Door contactors
- ✓ Seismic sensors
- ✓ PIR sensors

ESS RTU Product Range: Software

Alarm Monitoring & Control Software for high site monitoring and building management (This software is compatible with SCADA by means of the OPC interface software)
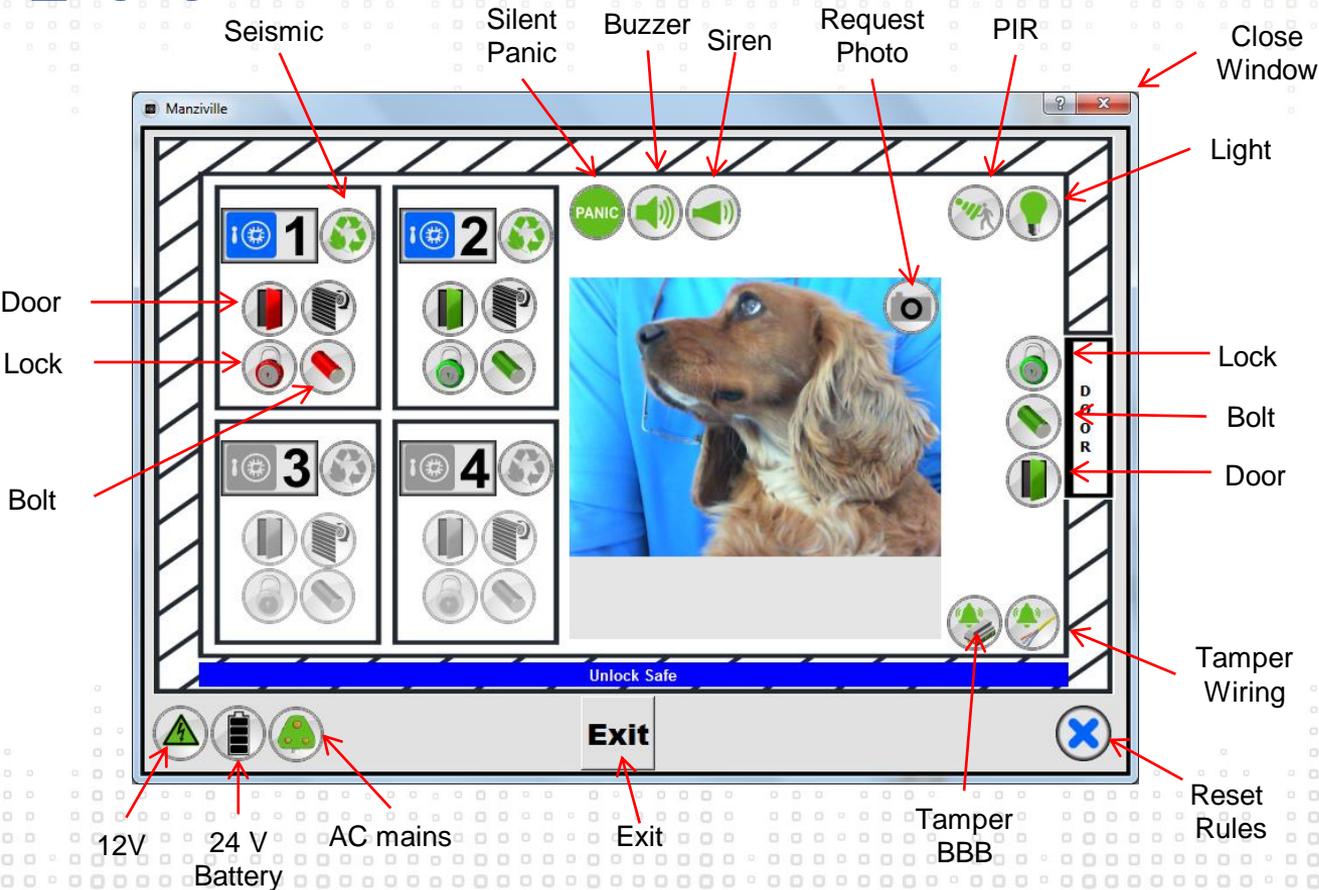
ESS RTU Product Range: Software
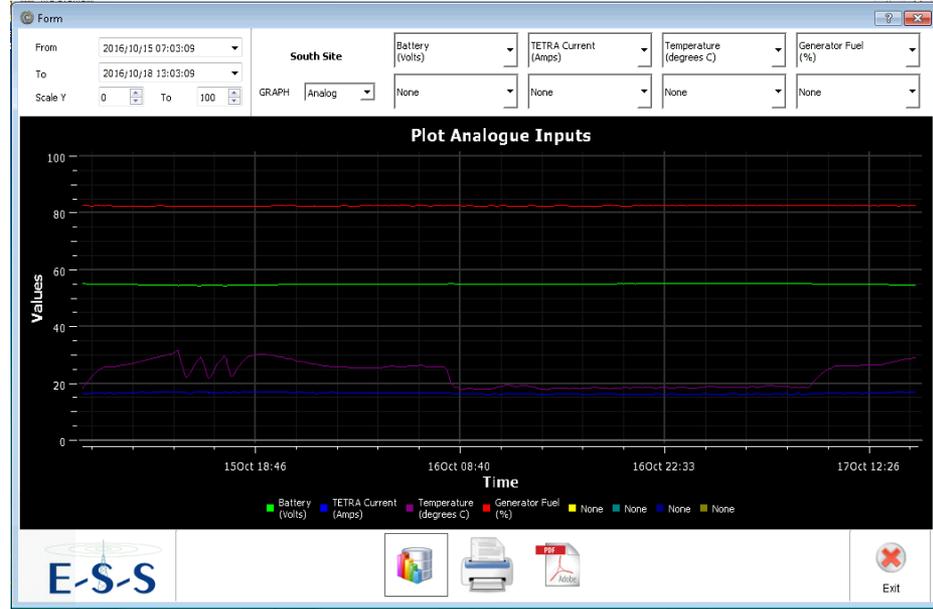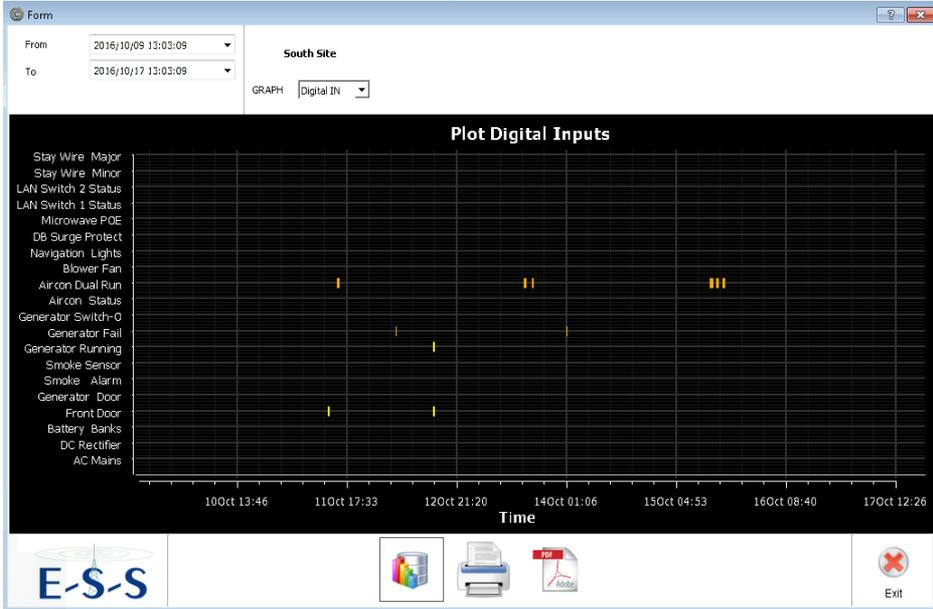
Digital and Analogue Input Trending and Plots

ESS RTU Product Range: Software

BankVault Software

Optimized for the banking sector.

The software provides for:

- ✓ custodian management
- ✓ access Control
- ✓ business rules
- ✓ alarm monitoring
- ✓ building management
- ✓ history tracking
- ✓ OTP generation
- ✓ Interface to other SQL DB